

## CLAIMS

- Sub B<sup>1</sup>* → 1/ A method of manufacturing a reinforced plastics material part from a sheet of drapable material by using a mold comprising first and second mold portions that are
- 5 movable relative to each other, the method comprising the following steps:
- placing the sheet on the first portion of the open mold;
  - pressing the sheet against the first portion at

10 one or more locations by means of one or more pushers mounted on the second portion of the mold and movable relative to said second portion;
  - closing the mold, a portion of the sheet projecting from the join plane after the mold has closed;

15 · compacting the sheet;
  - trimming off the portion of the sheet that projects from the join plane; and
  - unmolding the part.
- 20 2/ A method according to claim 1, in which the sheet is pressed against the first portion of the mold initially substantially in the center thereof.
- 3/ A method according to claim 2, in which the sheet is
- 25 pressed against the first portion of the mold initially by means of one or more pushers situated substantially in the center of the mold, and then progressively by means of other pushers, the pushers furthest from the center of the mold being actuated last.
- 30 4/ A method according to claim 1, in which trimming is performed by blades mounted on a cursor.
- 5/ A method according to claim 4, in which the inside
- 35 wall of the cursor is arranged so as to co-operate with the mold to form a compression chamber, and in which

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thermoplastics material is overmolded on the sheet inside said compression chamber.

5 6/ A method according to claim 5, in which the thermoplastic material is deposited by being extruded on the sheet before the mold is closed.

10 7/ A method according to claim 5, in which the sheet is overmolded by injecting thermoplastics material into the mold after the mold has been closed.

15 8/ A method according to claim 1, in which the first mold portion has one or more grooves and the second mold portion has one or more ribs arranged to engage in said groove(s), so as to trim the sheet at least in part around the outline of the groove(s) when the mold is closed.

20 9/ A method according to claim 1, in which the first portion constitutes a die having a setback in its top portion such that the resulting part is of generally channel section, with the web of the channel section having an indentation whose concave side faces in the opposite direction to the concave side of the channel section.

25 10/ A method according to claim 9, in which the second mold portion has one or more pushers arranged to engage in the setback of the first portion.

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11/ A mold for forming a sheet of reinforced plastics material, the mold comprising first and second portions that are movable relative to each other, one or more pushers mounted on the second portion and movable relative thereto so as to press said sheet at least locally against the first portion before the mold is closed, and at least one trimmer means enabling the

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portion of the sheet that projects from the join plane to be trimmed off once the mold is closed.

12/ A mold according to claim 11, in which the first  
5 portion has a setback and at least one of the pushers has an end of profile that corresponds substantially to the shape of the setback.

13/ A mold according to claim 11, in which one of the two  
10 mold portions has one or more grooves and the other portion has one or more ribs arranged to engage in said groove(s) so as to perform partial trimming of the part that is produced.

14/ A method according to claim 1, in which the  
15 reinforced plastics material part is a structural part of a motor vehicle.

15/ A method of manufacturing a reinforced plastics  
20 material part from a sheet of drapable material by using a mold comprising first and second mold portions that are movable relative to each other, the method comprising the following steps:

- preheating the sheet;
- 25 · placing the preheated sheet on the first portion of the open mold;
- pressing the sheet against the first portion at one or more locations by means of one or more pushers mounted on the second portion of the mold and movable  
30 relative to said second portion;
- closing the mold and compacting the sheet; and
- unmolding the part.

16/ A method of manufacturing a reinforced plastics  
35 material part from a sheet of drapable material by using a mold comprising first and second mold portions that are

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movable relative to each other, the method comprising the following steps:

- preheating the sheet;
- placing the preheated sheet on the first portion
- 5 of the open mold;
- pressing the sheet against the first portion at one or more locations by means of one or more pushers mounted on the second portion of the mold and movable relative to said second portion;
- 10 • closing the mold, a portion of the sheet projecting from the join plane after the mold has closed;
- compacting the sheet;
- trimming of the portion of the sheet that projects from the join plane; and
- 15 • unmolding the part.

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